

REMARKS

The present application was filed on July 29, 2003 with claims 1-28. Claims 1, 16 and 25-28 are the independent claims.

In the outstanding Office Action, the Examiner: (I) rejected claims 1-3, 9, 11, 12, 14-16 and 19-28 under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2002/0032691 filed in the name of Rabii et al. (hereinafter “Rabii”) in view of U.S. Patent No. 6,915,307 issued to Mattis et al. (hereinafter “Mattis”); (ii) rejected claims 4-8 and 10 under 35 U.S.C. §103(a) as being unpatentable over Rabii in view of Mattis in further in view of U.S. Patent No. 6,804,761 issued to Chen et al. (hereinafter “Chen”); (iii) rejected claims 13 and 17 under 35 U.S.C. §103(a) as being unpatentable over Rabii in view of Mattis in further in view of U.S. Patent No. 5,802,599 issued to Carbrera et al. (hereinafter “Carbrera”); and (iv) and rejected claim 18 under 35 U.S.C. §103(a) as being unpatentable over Rabii in view of Mattis in further in view of Carbrera in still further view of U.S. Publication No. 2004/0172507 filed in the name of Garthwaite (hereinafter “Garthwaite”).

In this response, Applicant: (I) amends the Abstract and claim 24 to correct minor non-substantive typographical errors; and (ii) traverses the various §103(a) rejections of claims 1-28 for at least the following reasons.

Regarding the §103(a) rejections, Applicant asserts that the various references, alone or in combination, fail to teach or suggest all of the limitations of the claims 1-28, as will be explained below. Furthermore, with regard to the combinations of the various references, Applicant asserts that such combinations are improper, as will be explained below.

The Rabii patent application is directed to methods for maintaining directory structures on disk. Rabii does not disclose how to allocate space efficiently for small objects as independent claim 1 recites. Claim 1 explicitly recites that it is a “method of managing storage of objects of sizes smaller than a storage transfer unit.” By way of example, the present application discloses that a sector is an example of a storage transfer unit. Rabii does not introduce any notion of a storage transfer unit.

Regarding the contention in the Office Action that Rabii discloses the first step of claim 1 (i.e., maintaining a plurality of storage transfer units in a first storage medium organized by a quantity of free space in a storage transfer unit), Applicant strongly disagrees. First, data object

partitions of Rabii are not the same as storage transfer units of the claimed invention. There is no support given in the Office Action or in Rabii to conclude otherwise. Secondly, Rabii does not organize such data object partitions by a quantity of free space, as the claimed invention recites with respect to storage transfer units.

Furthermore, Rabii fails to disclose the second step of claim 1 (i.e., maintaining in a second storage medium a cache comprising a copy of at least one of said plurality of storage transfer units) since there is no notion of storage transfer units maintained in the data buffers of FIG. 10 of Rabii.

Regarding the contention that Mattis discloses some steps of claim 1, Applicant strongly disagrees. Mattis discloses a method for managing an object cache, i.e., the data objects are stored directly in the cache. The claimed cache is for storing storage buffers. Data objects may be cached within the storage buffers themselves. This extra level of indirection in the claimed invention makes each of the steps in the claim different from Mattis.

Still further, the combination of Rabii and Mattis is improper. These two cited references are solving completely different problems. Rabii is directed to the problems associated with maintaining directory structures on a disk, while Mattis is directed to the problems associated with managing an object cache. Thus, it is not clear how or why one would combine the two disparate references.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” Id. at 1343-1344.

In the Office Action at page 3, the Examiner provides the following statement to prove motivation to combine Rabii and Mattis, with emphasis supplied: “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include the steps for storing an object as suggested by Mattis in Rabii’s system to assure the integrity of information objects . . .”

Applicant submits that this statement is based on the type of “subjective belief and unknown authority” that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, the Examiner fails to identify any objective evidence of record which supports the proposed combination. The Examiner cites Mattis at column 21, lines 1-15, which states that “the foregoing sequence of steps is ordered in a way that ensures the integrity of information objects that are written to the cache.” However, since Rabii has nothing to do with the problems associated with managing an object cache, but rather is directed to the problems associated with maintaining directory structures on a disk, it is unclear how the cited portion of Rabii provides proper motivation to combine Rabii and Mattis.

For at least these reasons, Applicant asserts that independent claims 1, 25 and 27 are patentable over the Rabii/Mattis combination. Furthermore, Applicant asserts that the claims which depend from claim 1 are patentable over the Rabii/Mattis combination not only for the reasons given above with respect to claim 1, but also because such dependent claims recite patentable subject matter in their own right.

Regarding independent claim 16, Applicant asserts that neither Rabii nor Mattis, alone or in combination, teach or suggest all of the limitations of the claimed invention.

Applicant initially notes that the Office Action cites the wrong reference (Rabii when the Office Action apparently means Mattis) in the one paragraph argument against claim 16.

Regardless of the error, none of the steps in claim 16 are disclosed by the cited combination. By way of example only, there is nothing the same or analogous to either “storage transfer units” or “object offsets” in the cited combination.

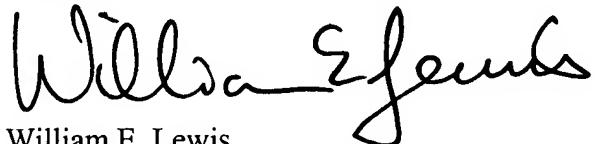
Further, the Rabii/Mattis combination is improper, as explained above.

For at least these reasons, Applicant asserts that independent claims 16, 26 and 28 are patentable over the Rabii/Mattis combination. Furthermore, Applicant asserts that the claims which depend from claim 16 are patentable over the Rabii/Mattis combination not only for the reasons given above with respect to claim 16, but also because such dependent claims recite patentable subject matter in their own right.

Furthermore, neither Chen, Carbrera, nor Garthwaite remedy any of the above-mentioned deficiencies of the Rabii/Mattis combination.

In view of the above, Applicant believes that claims 1-28 are in condition for allowance, and respectfully requests withdrawal of the §103(a) rejections.

Respectfully submitted,



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William E. Lewis  
Attorney for Applicant(s)  
Reg. No. 39,274  
Ryan, Mason & Lewis, LLP  
90 Forest Avenue  
Locust Valley, NY 11560  
(516) 759-2946